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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,905	10/04/2000	Nils Lindskog	1318	4042

7590 04/10/2003

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EXAMINER

COLAIANNI, MICHAEL

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 04/10/2003

CO

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/601,905	Applicant(s) Lindskog et al.
Examiner Michael Colaiani	Art Unit 1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on Feb 21, 2003

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

4) Claim(s) 1-11 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-11 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on Feb 21, 2003 is/are a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

4) Interview Summary (PTO-413) Paper No(s). _____

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

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Drawings

1. The corrected or substitute drawings were received on February 21, 2003. These drawings are approved.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-4, 6-9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Monks et al. 3585268 in view of Jung 2422734.

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Monks et al. teaches all that is claimed in claims 1, 2, 3, 4, 6, 7, 8, 9 and 11 (Fig. 1 and 2, ref. no. 16, 15, 14 and col. 1, lines 62-68, the spiral heating element 16 is inserted into elongated notches 15 which served to hold the heating element 16 as a spiral in a tube); except using thermocouples to monitor and control the temperature of the walls.

However, Jung teaches that it is known in the electrical resistance heating art to use thermocouples to measure the temperature on the roof, walls and floor of electric resistance furnaces and then controlling the amount of heat applied to the resistances based upon the thermocouple readings (col. 3-4 and Figure 1, ref. letters I, P, a, b, w).

It would have been *prima facie* obvious at the time the invention was made to combine Jung's teachings with Monks' method and apparatus of conditioning glass because doing so would provide control over the heating and melting of the glass. Moreover, using a heating control system would prevent excessive or insufficient heating of Monks glass batch. Furnaces typically have feedback control mechanisms as delineated by Jung to control the heating of the contents in the furnace.

5. Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monks et al. 3585268 in view of Jung 2422734 and Thompson 1603221.

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Monks et al. in view of Jung teach applicant's claimed invention. See the §103(a) rejection for Monks et al.'s teachings. However, Monks in view Jung do not teach the resistor element being in band-shaped form.

However, Thompson teaches that it is well known in the resistor heating art to form the heating element into band shaped form (Fig. 1, ref. no. 4a, 4b, page 1, lines 70-80).

It would have been *prima facie* obvious at the time the invention was made to combine Thompson's teachings with Monks in view of Jung's method and apparatus of conditioning glass because doing so would provide more uniform heating by permitting more exposure of the glass to the resistor elements, e.g. the multiple wrappings of the band shaped heating element would provide more coverage of the glass melt.

Response to Arguments

6. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Colaianni whose telephone number is 703-305-5493. The examiner can normally be reached on Monday to Friday from 8:00 AM to 4:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin, can be reached on (703) 308-1164. The fax phone number for the organization where this application or proceeding is assigned is 703-305-7115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

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April 7, 2003


MICHAEL COLAIANNI
PRIMARY EXAMINER